

Work Order ID 61914



Page 1

Thursday, September 09, 2010 1:16:17 PM

Item ID: D350-636-012

Accept



Setup Start



Revision ID:

Item Name: Skidtube RH

Stop



Start Date: 9/9/2010 Start Qty: 1.00

Required Date: 9/17/2010 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

H

Date:

10-9-09

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D2750

Rev F

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy blue file and type labels per PPP D350-636-012 CHG 005

5/10/10/26

HJ for BG 10-10-25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Approvals: Process Plan: Date: Tooling: Date:
QC: Date: SPC (Y/N): Date:

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	Skidtubes	0.00							
Skidtubes	Memo	0.00							
Skidtubes	1- Pick D2600-3 Bent								
	2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750								
	3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.								
	4- Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade fitting								
	5- Drill fwd step holes using DT9616. Ensure proper positioning.								
	6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-2 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B) ***ONLY DRILL ONE SIDE OF FWD SADDLE HOLES USING DT8150***								
	7- Clecko DT8863B on second side of tube and drill pilot holes for detail B. ***SECOND SIDE***								
	8- Clecko DT9642 and drill fwd saddle holes on second side, ensure proper positioning.								
	9- Open up holes for Detail B to 0.375" (4 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up holes for ground handling and detail C to 0.500" (8 holes per side)								
	10- Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to								

BB 10/09/14

SAD
10-09-27

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Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

220

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

✓ Install inserts as per dwg D2750

= 24 10/10/11

1 0

230

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

✓ 1-Inspect for Foreign Objects

2-Spray inside of tube with "LPS-3"

✓ batch: N/A

3-Install blade fitting D3488-042, wearshoes and ground handling hardware as per dwg D2750

SIKA FLEX 241

✓ BATCH: M115114

EXP DATE: 11/01

4-assemble o-ring to plug as per dwg D3492 and apply o-ring lube

✓ A/R 55-o-ring lube batch: M114189

5-Coat all exposed fasteners with "LPS Procyon"

batch: M114896

= 24 10/10/11

1 0

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Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240  QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							
250  Packaging Packaging	Pick Kit Memo	0.00 0.00							
260  QC Quality Control	QC4- 100% Inspect kits for completeness Memo	0.00 0.00							

8/10/10/25

(H)

10/10/25

(H)

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start
Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270		0.00							
Packaging									
Packaging	Memo	0.00							
Packaging	Package as per PPP D350-636-012								
280		0.00							
QC	QC21- Final Inspection - Work Order Release	0.00							
Quality Control	Memo	0.00							

REVH

10/10/27

10/10/28

MF

10-10-27

B61914

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Parent Item Name: Skidtube RH



Start Date: 9/9/2010

Required Date: 9/17/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev: I 02.09.25 Rearranged procedure steps KJ
 IPP Rev: J 06-03-29 As per Rev D EC
 IPP Rev: K 06-07-13 As per dsi9343 EC
 IPP Rev: L 07-07-28 Added SS Wearplates (Rev E) JLM Verified By: EC
 IPP Rev: M 08-04-22 update steps 4,13 DD verified by: EC
 IPP Rev: N 08-09-23 revF as per dwg DD verified by: ec IPP Rev: O
 10.06.22 revise seq110 DD verf: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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ALS4-1032-225		Purchased	No			220	Each	5,329.000	38	38			
Insert													

Location	Loc Qty	Loc Code
PK011	5329	
110768	5329	

AN3C5A		Purchased	No			230	Each	1,530.000	34	34			
Bolt													

Location	Loc Qty	Loc Code
ST350	1520	
114330	11	
115015	209	
115108	300	
115316	300	
115371	100	
115422	100	
115594	500	
ST351	10	
113121	10	

28 10/10/14

x34

28 10/10/14

x34

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Parent Item Name: Skidtube RH

Start Date: 9/9/2010

Required Date: 9/17/2010



Start Qty: 1.00

Required Qty: 1.00

AN3C6A	Purchased	No	230	Each	301.0000	4	4
							yl 10/10/14
BOLT							



<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST351	301	
111982	301	

AN6C44A	Purchased	No	230	Each	125.0000	4	4
							yl 10/10/14
BOLT							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FG	2	
103964	2	
ST344	123	
111649	2	
114653	1	
114941	75	
115030	45	

AN8C35A	Purchased	No	230	Each	40.0000	1	1
							yl 10/10/14
BOLT							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP	1	
110847	1	
ST346	39	
114442	14	
115188	25	

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Parent Item Name: Skidtube RH

Start Date: 9/9/2010

Required Date: 9/17/2010

Start Qty: 1.00

Required Qty: 1.00

AN960C10L NAS1149C0332 Purchased No

230 Each 155.0000 38 38



washer



10/10/14

Location

Loc Qty

Loc Code

ST245

155

107534

29

109545

54

111548

72

M115886

x38

AN960C816L Purchased No

230 Each 0.0000 1 1



WASHER XNAS1149C08332 / M114915



x1 10/10/14

D2745 Manufactured No

230 Each 165.0000 8 8



Bushing



10/10/14

Location

Loc Qty

Loc Code

ST023

165

52311

5

59112

60

61203

100

x8

D3488-042 Manufactured No

230 Each 12.0000 1 1



Blade Fitting Assembly, RH



10/10/14

Location

Loc Qty

Loc Code

FP008

12

59643

12

x1

W/O:		WORK ORDER CHANGES					
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Parent Item Name: Skidtube RH

Start Date: 9/9/2010

Required Date: 9/17/2010

Start Qty: 1.00

Required Qty: 1.00

D3492-041

Manufactured No

230

Each

49.0000

8

8



Plug Assembly



10/10/14

Location

Loc Qty

Loc Code

FP013

49

59114

1

61311

48

D3492-043

Manufactured No

230

Each

75.0000

8

8



Plug Assembly



10/10/14

Location

Loc Qty

Loc Code

FP

2

54682

2

FP013

73

59117

1

59190

4

61207

8

61503

60

D3535-25

Manufactured No

230

Each

9.0000

1

1



Wearshoe



10/10/14

Location

Loc Qty

Loc Code

FP18

9

59623

9

D3536-25

Manufactured No

230

Each

36.0000

1

1



Gasket



10/10/14

Location

Loc Qty

Loc Code

FP12

36

59625

10

61707

26

Thursday, September 09, 2010 1:16:21 PM

Shop Packet Print

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Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 9/9/2010

Required Date: 9/17/2010

Start Qty: 1.00

Required Qty: 1.00

D3537-1

Manufactured No

230

Each

21.0000

3

3



10/10/14

Wearpad

Location

Loc Qty

Loc Code

FP

1

55465

1

FP17

6

57713

3

60491

3

FP18

14

61201

14

B 61986

B 61646

x2

y1

D3631-1

Manufactured No

230

Each

467.0000

8

8



10/10/14

Washer

Location

Loc Qty

Loc Code

ST072

193

60755

193

ST076

274

52693

206

54388

68

y8

D3672-1

Manufactured No

230

Each

901.0000

4

4



10/10/14

Phenolic Washer

Location

Loc Qty

Loc Code

ST077

901

42329

150

52505

751

y4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Parent Item Name: Skidtube RH

Start Date: 9/9/2010



Required Date: 9/17/2010

Start Qty: 1.00



Required Qty: 1.00

D3791-1 Manufactured No 230 Each 7.0000 1 1
  yl 10/10/14
Wearplate



Location	Loc Qty	Loc Code
FP17	7	B61702
58573	7	

D3793-1 Manufactured No 230 Each 14.0000 1 1
  yl 10/10/14
Wearshoe

Location	Loc Qty	Loc Code
FP18	14	
59151	1	
59630	1	
61244	12	

D3793-3 Manufactured No 230 Each 13.0000 1 1
  yl 10/10/14
Wearshoe

Location	Loc Qty	Loc Code
FP18	12	
61258	12	
FP19	1	
57947	1	

D3794-1 Manufactured No 230 Each 32.0000 1 1
  yl 10/10/14
Gasket

Location	Loc Qty	Loc Code
FP010	32	
57942	6	
61704	26	

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Start Date: 9/9/2010

Required Date: 9/17/2010

Start Qty: 1.00

Required Qty: 1.00

D3794-3

Manufactured No

230

Each

37.0000

1

1



Handwritten: 10/10/10

Gasket

Location

Loc Qty

Loc Code

FP10

27

60826

1

61712

26

FP18

10

56066

9

59153

1

MS21043-6

Purchased No

230

Each

674.0000

4

4



Handwritten: 10/10/10

NUT

Location

Loc Qty

Loc Code

ST301

674

112314

674

MS21083C8

Purchased No

230

Each

69.0000

1

1



Handwritten: 10/10/10

NUT

Location

Loc Qty

Loc Code

ST303

69

113845

5

114934

14

115594

50

Handwritten: X1

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Required Date: 9/17/2010

Start Qty: 1.00

Required Qty: 1.00

NAS1611-010

Purchased

No

230

Each

309.0000

8

8



O-RING

Location

Loc Qty

Loc Code

FP

309

110715

100

110915

159

115589

50

NAS1611-013

Purchased

No

230

Each

232.0000

8

8



O-RING

Location

Loc Qty

Loc Code

FP

232

114451

32

115460

100

115589

100

AN8C21A

Purchased

No

250

Each

33.0000

2

2



BOLT

Location

Loc Qty

Loc Code

ST345

33

113558

1

114653

32

AN960C816L

Purchased

No

250

Each

0.0000

1

2



WASHER

NAS1149C0832A

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Dart Aerospace Ltd

W/O: 61914		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/10/14	230	Replace NAS 1611-010 "O" Rings with D 2594-3 / M 61792 "O" Rings	911	10/10/14	X8		8 10/10/14

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Start Date: 9/9/2010

Required Date: 9/17/2010

Start Qty: 1.00

Required Qty: 1.00

D2741

Manufactured No

250 Each

45.0000

1

1



Blade, 350 Skidtube



10/10/255

Location

Loc Qty

Loc Code

ST466

45

57949

7

60210

38

Manufactured No

250 Each

24.0000

2

2

D3493-1



Washer



10/10/255

Location

Loc Qty

Loc Code

ST065

24

60873

24

Manufactured No

250 Each

9.0000

2

2

D3532-1



Spacer



361673 10/10/255

Location

Loc Qty

Loc Code

ST068

9

60510

9

Purchased No

250 Each

818.0000

2

2

D3672-13



Phenolic Washer



10/10/255

Location

Loc Qty

Loc Code

ST077

818

54363

818

0

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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, September 09, 2010 1:16:21 PM

Work Order ID: 61914

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 9/9/2010

Required Date: 9/17/2010

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

Purchased

No

250

Each

69.0000

1



NUT



2
10/10/10

Location

Loc Qty

Loc Code

ST303

69

113845

5

114934

14

115594

50

D2600-3-BENT

Manufactured

No

110

Each

16.0000

1



Extrusion Bent



2
1

Location

Loc Qty

Loc Code

LG

16

59410

1

61633

5

61634

10

D2744

Manufactured

No

110

Each

18.0000

1



Cap



10-9-14

Location

Loc Qty

Loc Code

LG

18

59198

18

D2739

Manufactured

No

160

Each

5.0000

1



350 I Beam



BE 10/09/16
SAD 10-09-28

Location

Loc Qty

Loc Code

LG

5

61637

5

B 61998

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, September 09, 2010 1:16:21 PM

Work Order ID: 61914

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 9/9/2010

Required Date: 9/17/2010

Start Qty: 1.00

Required Qty: 1.00

D2743

Manufactured No

160

Each

203.0000

8

8



Crossbolt Spacer

Location

Loc Qty

Loc Code

LG

203

50281

10

57953

2

59111

191

D3490-3

Manufactured No

160

Each

43.0000

4

4



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

43

60294

6

61218

37

D3490-1

Manufactured No

160

Each

81.0000

4

4



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

81

59424

3

61217

78

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

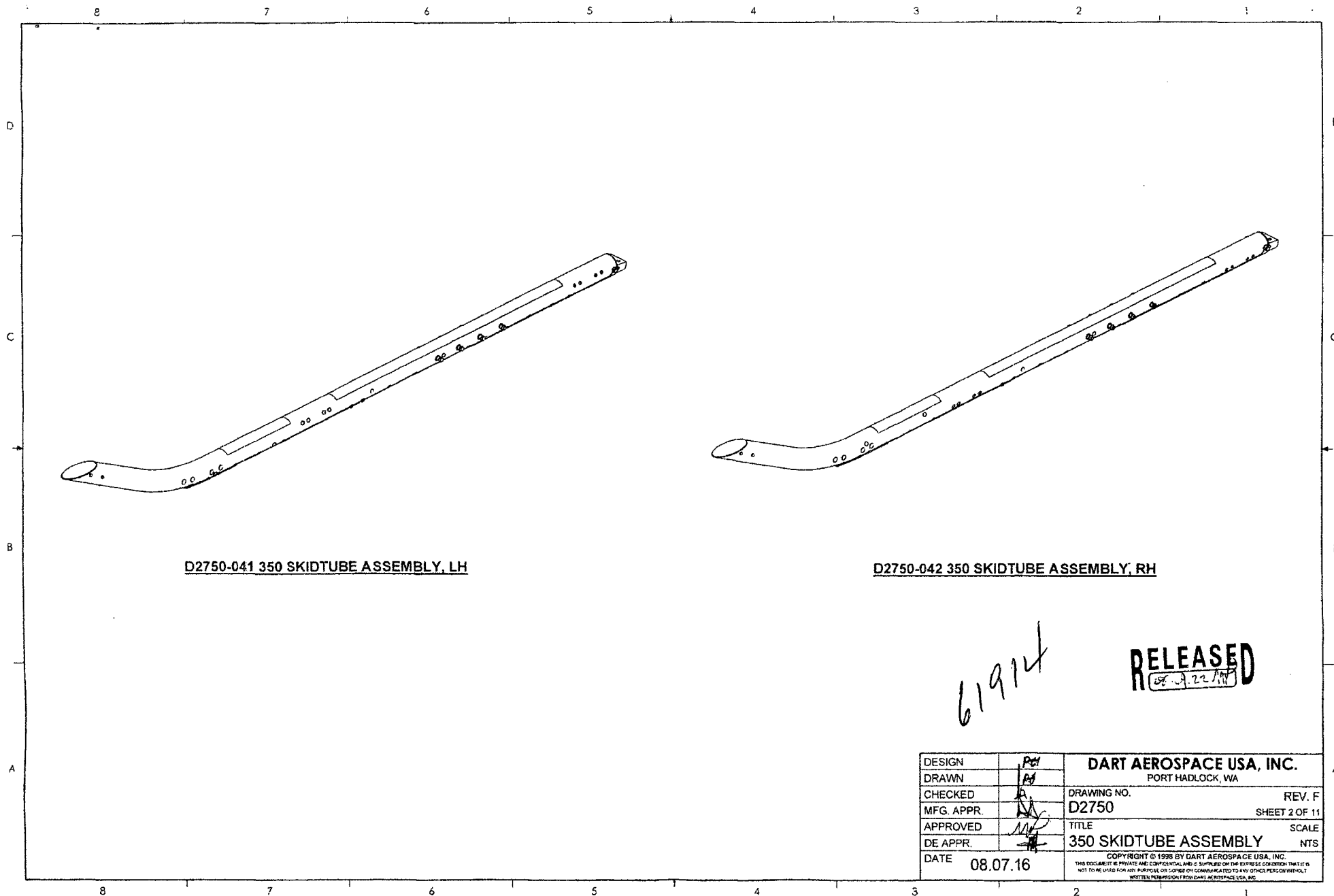
QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:
ACID ETCH, ALONG ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

F	INCORPORATE DSI 8413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/-3 REPLACES D3535-13/-35 (ZN C8-1); D3794-1/-3 REPLACES D3536-13/-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (5 PL); WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS, CHANGE INSERTS: ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H8L; REMOVE D2741; QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEC 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24594-S293 TO AN8-15A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN	DART AEROSPACE USA, INC.		
DRAWN	PORT HADLOCK, WA		
CHECKED	DRAWING NO.	REV. F	
MFG. APPR.	D2750	SHEET 1 OF 11	
APPROVED	TITLE	SCALE	
DE APPR.	350 SKIDTUBE ASSEMBLY	NTS	
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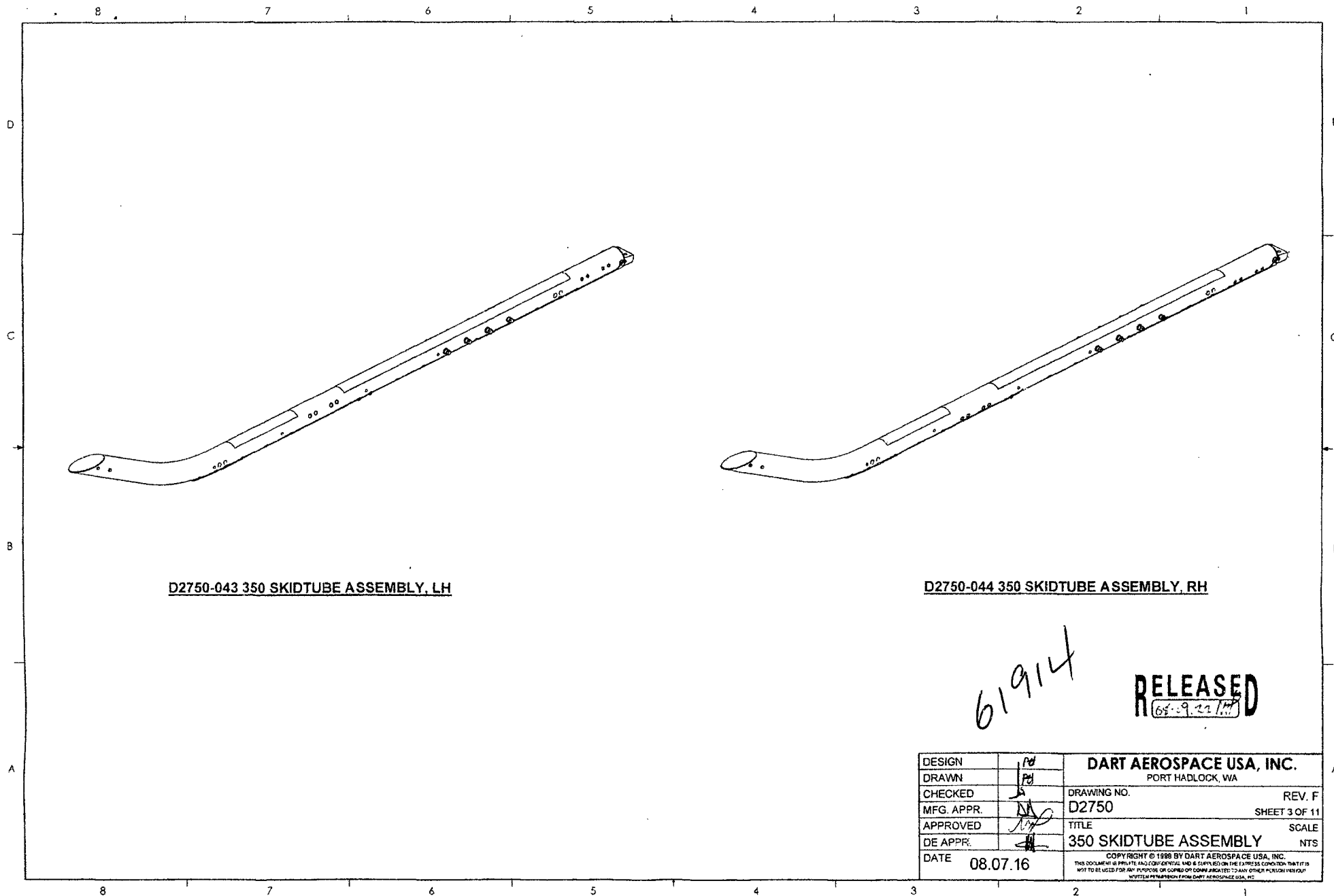
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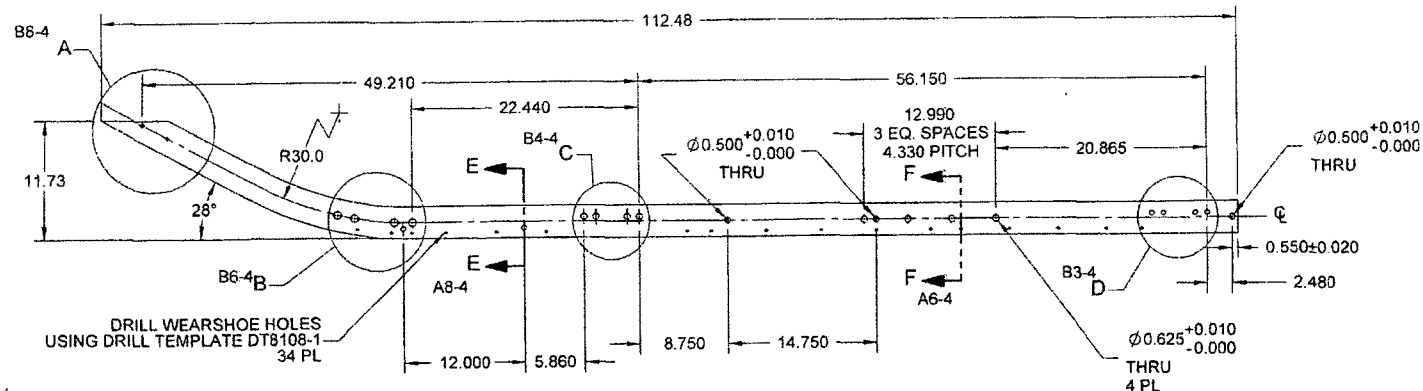
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MFG. APPR.	MA	SHEET 2 OF 11	
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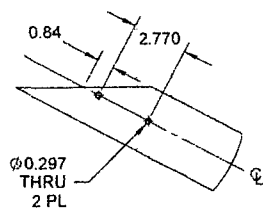
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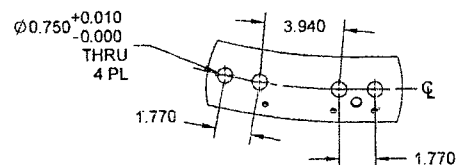
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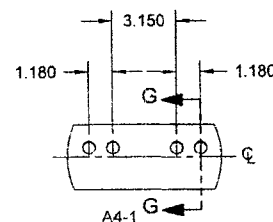
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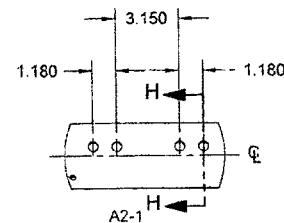
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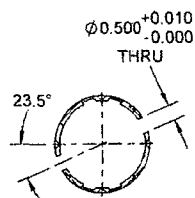
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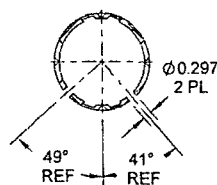
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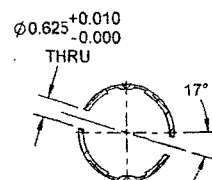
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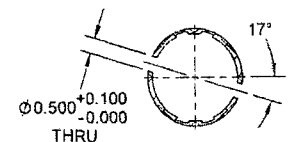
SECTION E-E
SCALE 3X, 2 PL



SECTION F-F
SCALE 3X, 17 PL



SECTION G-G
SCALE 3X, 4 PL

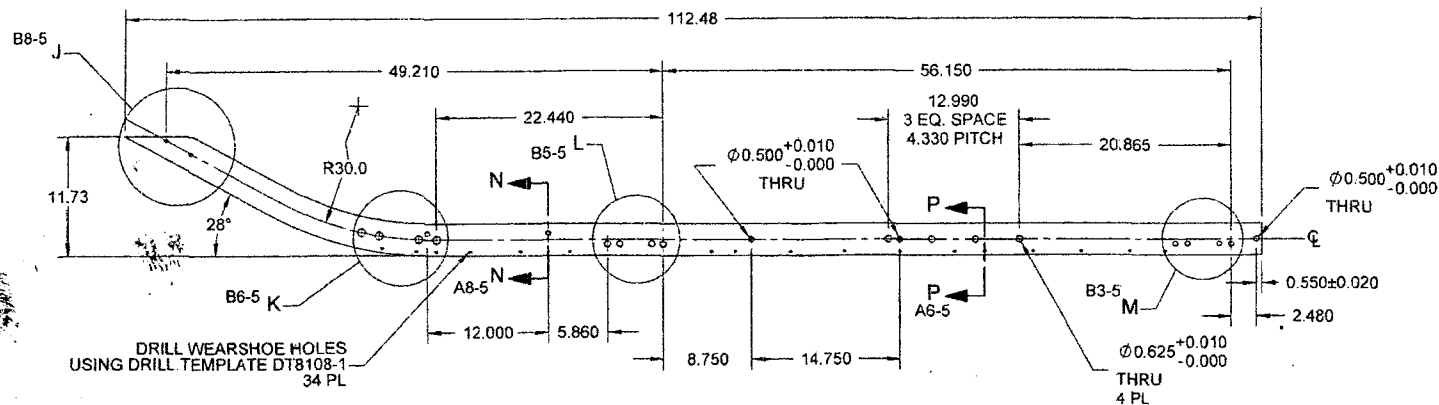


SECTION H-H
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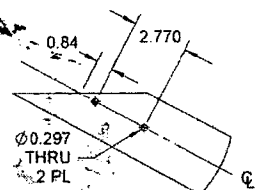
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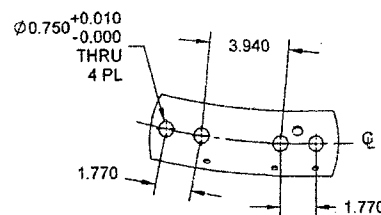
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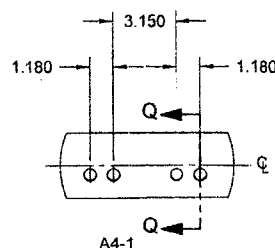
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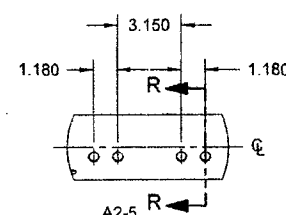
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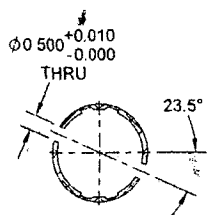
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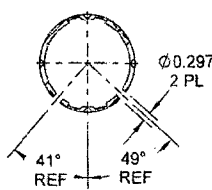
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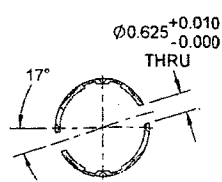
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SCALE 2X



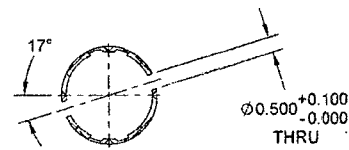
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SCALE 3X, 2 PL



SECTION P-P
SCALE 3X, 17 PL



SECTION Q-Q
SCALE 3X, 4 PL



SECTION R-R
SCALE 3X, 4 PL

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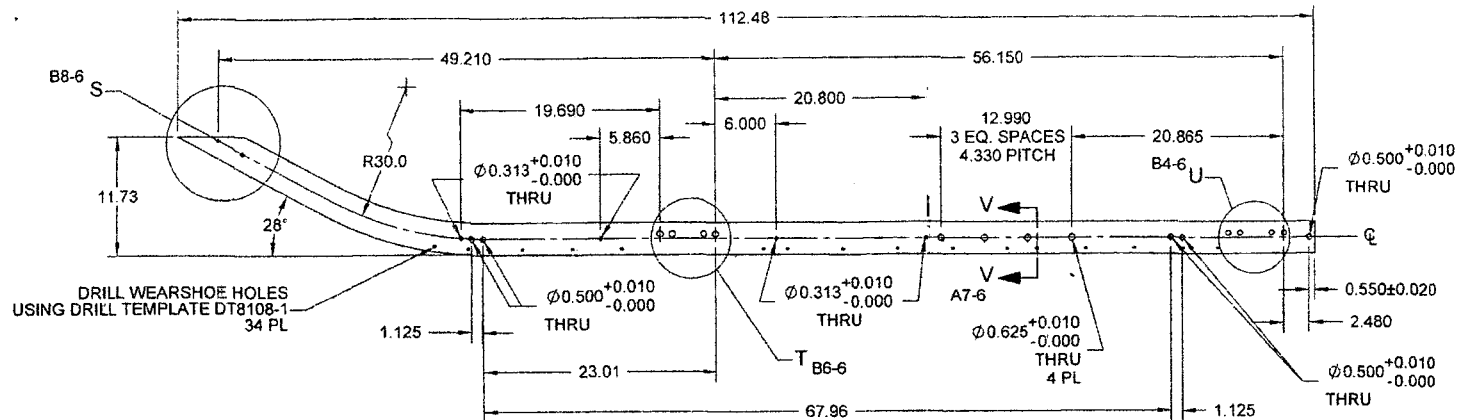
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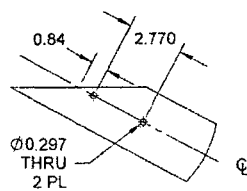
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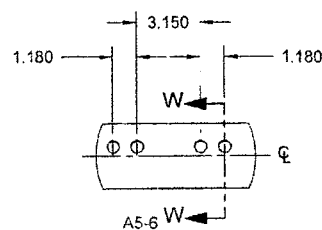
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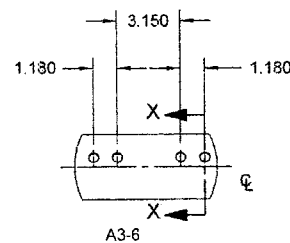
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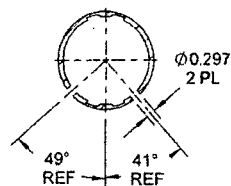
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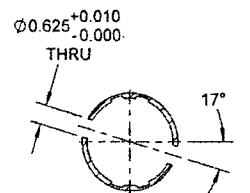
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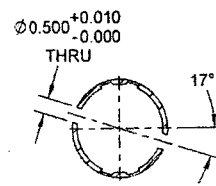
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SCALE 2X



SECTION V-V
SCALE 3X, 17 PL









SECTION W-W
SCALE 3X, 4 PL

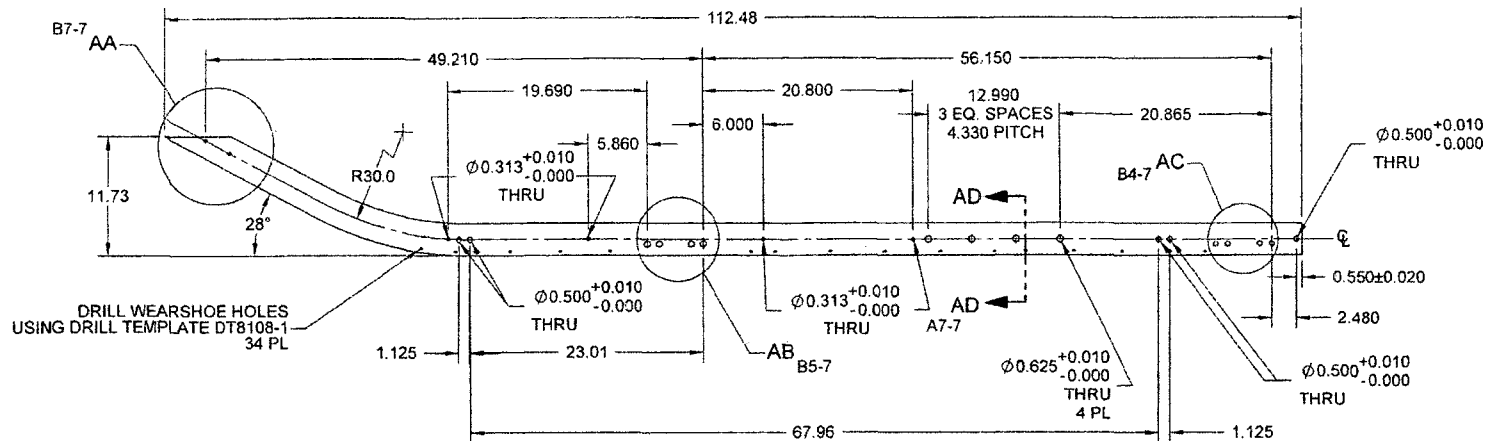


SECTION X-X
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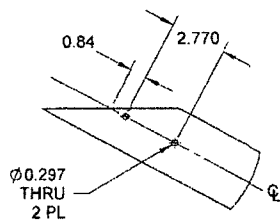
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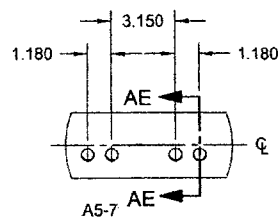
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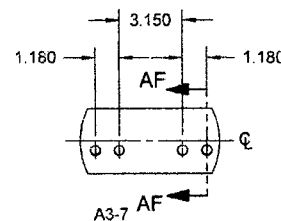
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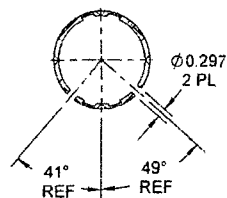
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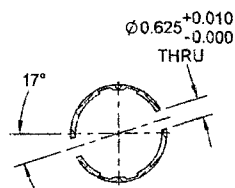
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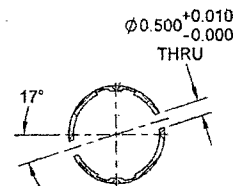
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SCALE 2X



SECTION AD-AD
SCALE 3X, 17 PL



SECTION AE-AE
SCALE 3X, 4 PL

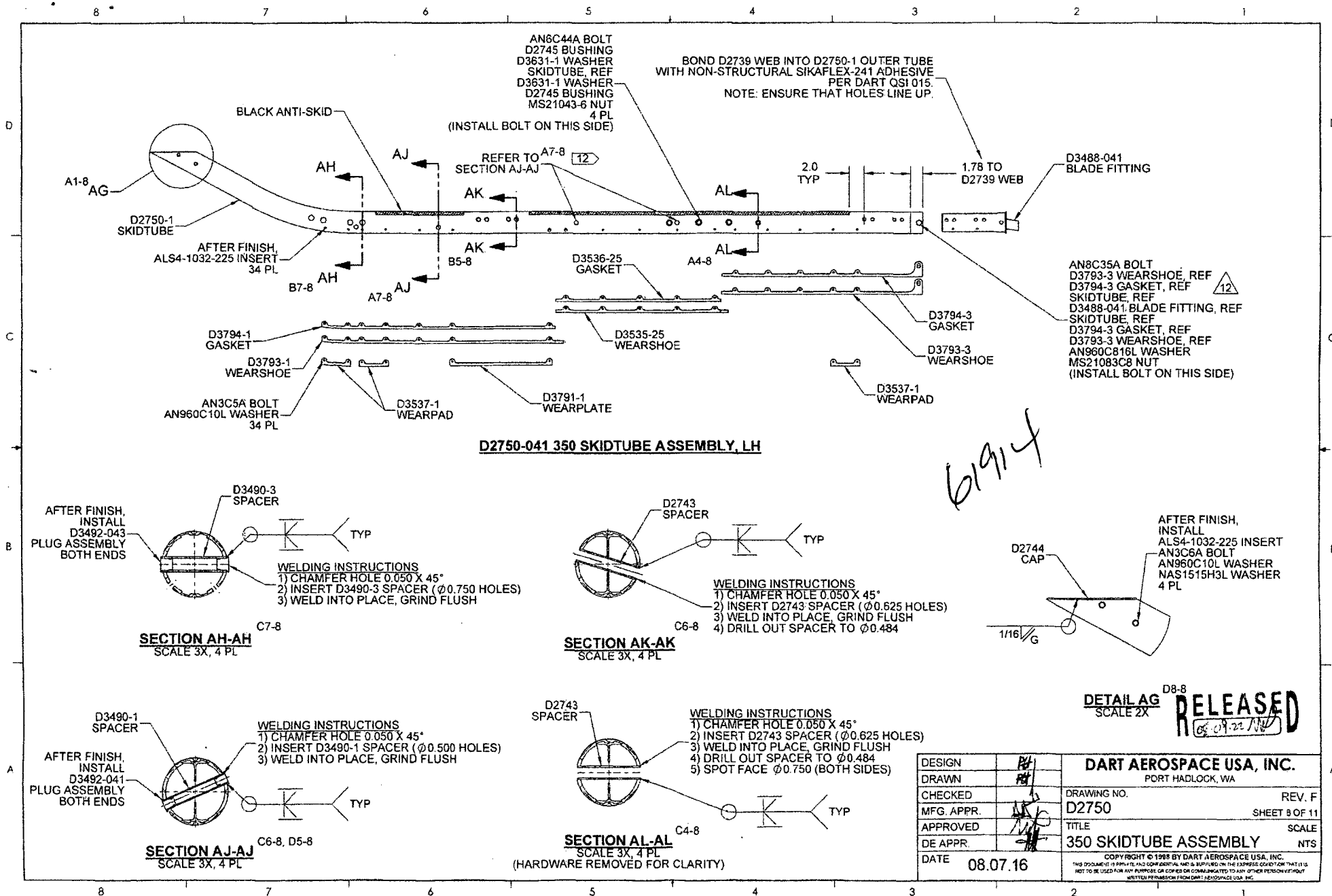


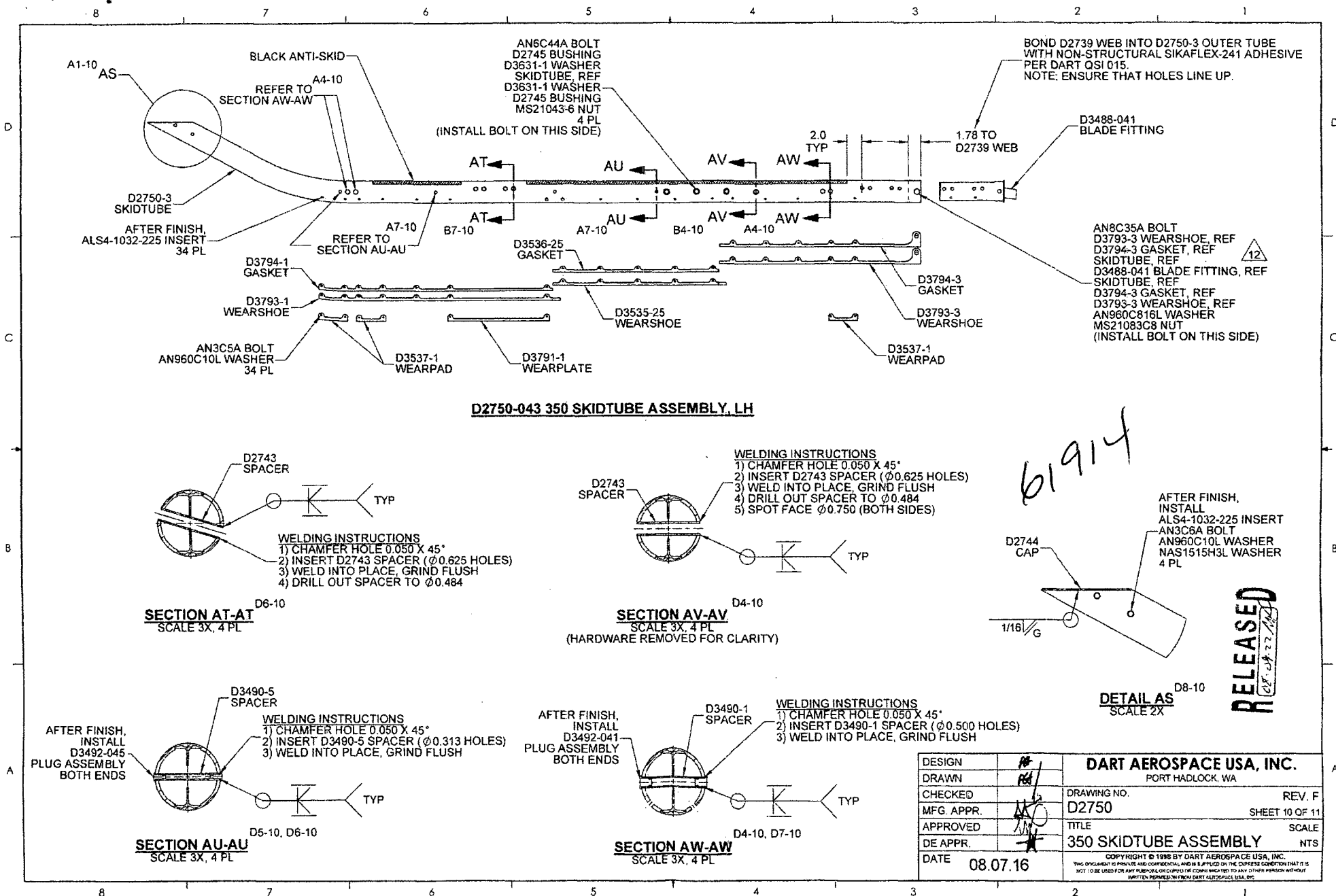
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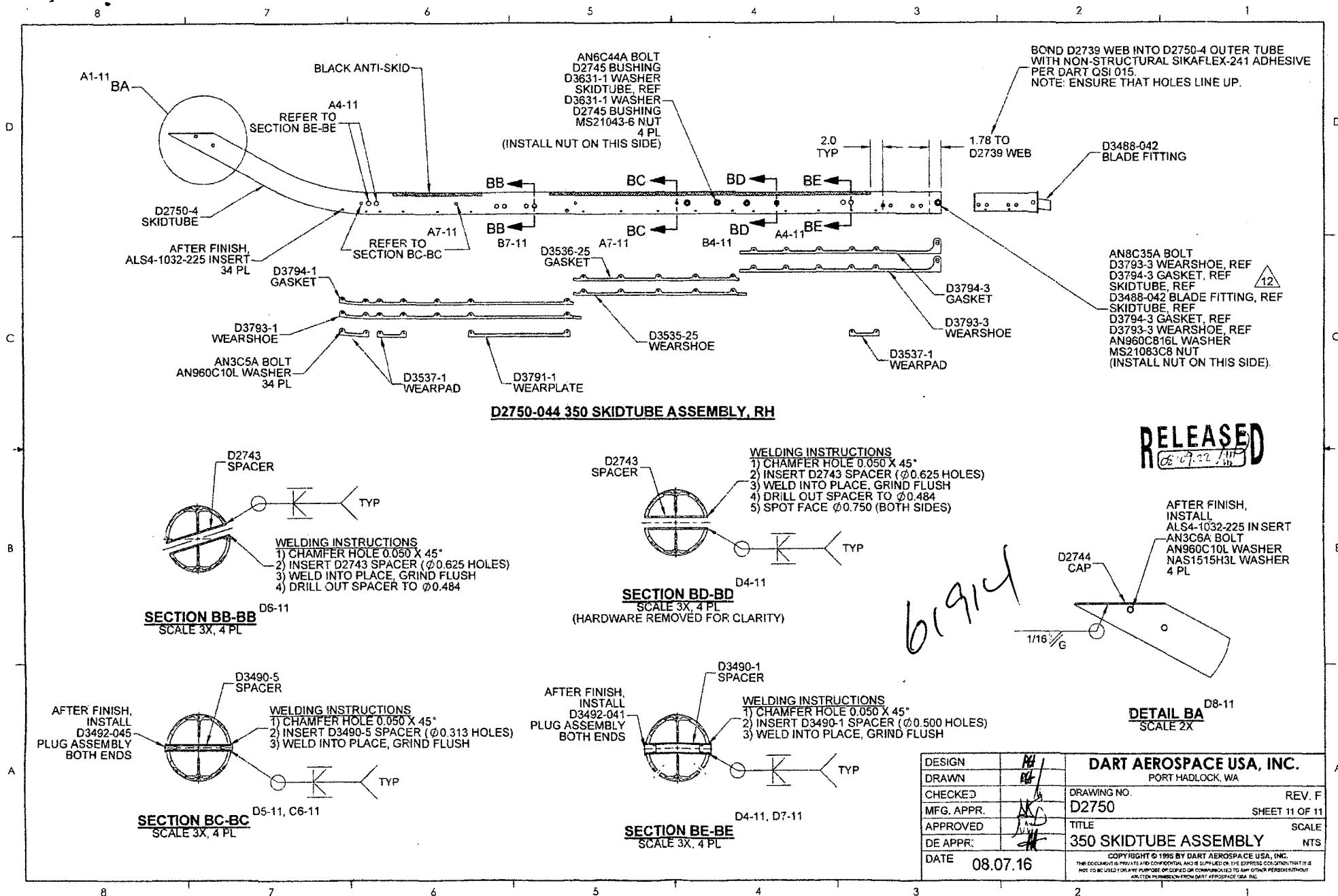
61914

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08-14-2010

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NO. 236

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 60988
Part number: D350-436-Q12
Description: 350 skid tube
Welding Process: Tig[☒] Mig[☐]
Base material: Aluminium
Current: AC[☒] DC[☐]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[☐]
Penetration: pass[☒] fail[☐]

UNACCEPTABLE

Cracks: pass[☒] fail[☐]
Undercut: pass[☒] fail[☐]
Pin holes: pass[☒] fail[☐]
Overlap (cold lap): pass[☒] fail[☐]
Porosity (surface): pass[☒] fail[☐]
Coloration: pass[☒] fail[☐]

Qualifier [Signature] Date of Test Coupon 10.08.12

Welder [Signature] Date of Test Coupon 10.08.12

The above named individual is qualified in accordance with AWS D17.1.2001 to weld